IN THE CLAIMS

Please cancel claims 3-9, 12-15, and 27-28 without prejudice or disclaimer.

Please add the following new claims 45-57.

For the Examiner's convenience, all pending claims are listed below. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

What is claimed is:

1. An isolated polypeptide selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1,

b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1,

B1 c) a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, wherein said fragment binds to microtubules and

d) an immunogenic fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1.

2. An isolated polypeptide of claim 1 comprising the amino acid sequence of SEQ ID NO:1.

10. An isolated antibody which specifically binds to a polypeptide of claim 1.

B2 11. An isolated polynucleotide selected from the group consisting of:

a) a polynucleotide comprising the polynucleotide sequence of SEQ ID NO:2,

b) a polynucleotide comprising a naturally occurring polynucleotide sequence at least 90% identical to the polynucleotide sequence of SEQ ID NO:2,

c) a polynucleotide complementary to a polynucleotide of a),

d) a polynucleotide complementary to a polynucleotide of b), and

e) an RNA equivalent of a)-d).

30. The antibody of claim 10, wherein the antibody is:

B3 a) a chimeric antibody,

b) a single chain antibody,

c) a Fab fragment,

d) a $F(ab')_2$ fragment, or

e) a humanized antibody.

43. A method of detecting a polypeptide having the amino acid sequence of SEQ ID NO:1 in a sample, comprising the steps of:

a) incubating the antibody of claim 10 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and

b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide having the amino acid sequence of SEQ ID NO:1 in the sample.

44. A method of purifying a polypeptide having the amino acid sequence of SEQ ID NO:1 from a sample, the method comprising:

a) incubating the antibody of claim 10 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and

b) separating the antibody from the sample and obtaining the purified polypeptide having the amino acid sequence of SEQ ID NO:1.

45. (New) A method for a diagnostic test for a condition or disease associated with the expression of hLC3 in a biological sample comprising the steps of:

a) combining the biological sample with an antibody of claim 10, under conditions suitable for the antibody to bind the polypeptide and form an antibody:polypeptide complex; and

b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

46. (New) A composition comprising an antibody of claim 10 and an acceptable excipient.

47. (New) A method of diagnosing a condition or disease associated with the expression of hLC3 in a subject, comprising administering to said subject an effective amount of the composition of claim 46.

48. (New) A composition of claim 46, further comprising a label.

49. (New) A method of diagnosing a condition or disease associated with the expression of hLC3 in a subject, comprising administering to said subject an effective amount of the composition of claim 48.

50. (New) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 10 comprising:

a) immunizing an animal with a polypeptide having the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response;

b) isolating antibodies from said animal; and

c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide having the amino acid sequence of SEQ ID NO:1.

51. (New) An antibody produced by a method of claim 50.

B5

52. (New) A composition comprising the antibody of claim 51 and a suitable carrier.

53. (New) A method of making a monoclonal antibody with the specificity of the antibody of claim 10 comprising:

a) immunizing an animal with a polypeptide having the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response;

b) isolating antibody producing cells from the animal;

c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells;

d) culturing the hybridoma cells; and

e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide having the amino acid sequence of SEQ ID NO:1.

54. (New) A monoclonal antibody produced by a method of claim 53.

55. (New) A composition comprising the antibody of claim 54 and a suitable carrier.

56. (New) The antibody of claim 10, wherein the antibody is produced by screening a Fab expression library.

B5

57. (New) The antibody of claim 10, wherein the antibody is produced by screening a recombinant immunoglobulin library.